



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,292	07/09/2003	Jung-Yuan Tsai	HTCP0009USA	1291
27765	7590	05/11/2005	EXAMINER	
NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC)			WACHSMAN, HAL D	
P.O. BOX 506			ART UNIT	
MERRIFIELD, VA 22116			PAPER NUMBER	
			2857	

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/604,292

Applicant(s)

TSAI ET AL.

Examiner

Hal D. Wachsman

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-8, 10-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's Admissions of the prior art in view of Eguchi et al. (6,087,803).

As per claim 1, the Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose "a housing for accommodating a detachable battery...providing main power for operations of the portable electronic device". The Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose "a sensor installed in the housing for detecting conditions of

Art Unit: 2857

the detachable battery...for detecting if the type of the detachable battery is correct, for detecting if the power volume of the detachable battery is sufficient, and for detecting if the detachable battery is correctly installed in the battery vessel". The Applicant's Admissions of the prior art (figure 1, paragraph 0005 of the specification) disclose "an operating processor for controlling operations of the portable electronic device". With respect to the starting module as described in the last 4 lines of the claim, the Applicant's Admissions of the prior art (paragraph 0004 of the specification) disclose the automatic turn on of a portable device after the sensor detects the detachable battery being correctly installed in the housing. It appears though that the Applicant's Admissions of the prior art does not clearly disclose a starting module as described in the claim that can output a turn-on signal to the operating processor when correct detachable battery installation is detected. However, Eguchi et al. (Abstract, col. 2 lines 11-20, 33-37, 50-54, col. 3 lines 16-42, col. 5 lines 21-24, col. 12 lines 9-12) teaches this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Eguchi et al. to the Applicant's Admissions of the prior art as specified above because as taught by Eguchi et al. col. 3 lines 64-67) it would reduce the number of terminals for detection of loading of the battery pack enabling the realization of miniaturization and result in less unsatisfactory contact of the terminal.

As per claim 2, the Applicant's Admissions of the prior art (figure 1, paragraph 0005 of the specification) disclose the feature of this claim.

As per claim 3, the Applicant's Admissions of the prior art (figure 1, paragraph 0005 of the specification) disclose the feature of this claim.

As per claim 4, the Applicant's Admissions of the prior art (paragraph 0004 of the specification) disclose the automatic turn on of a portable device after the sensor detects the detachable battery being correctly installed in the battery vessel and thus when the detachable battery is not correctly installed the turn-on signal would not be sent. It appears though that the Applicant's Admissions of the prior art does not clearly disclose a starting module for accomplishing the above. However, Eguchi et al. (Abstract, col. 2 lines 11-20, 33-37, 50-54, col. 3 lines 16-42, col. 5 lines 21-24, col. 12 lines 9-12) teaches this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Eguchi et al. to the Applicant's Admissions of the prior art as specified above because as taught by Eguchi et al. col. 3 lines 64-67) it would reduce the number of terminals for detection of loading of the battery pack enabling the realization of miniaturization and result in less unsatisfactory contact of the terminal.

As per claim 5, the Applicant's Admissions of the prior art (figure 1, paragraph 0005 of the specification) disclose the detection of whether a battery cover plate is correctly joined with the battery vessel after a detachable battery is put inside the battery vessel. The Applicant's Admissions of the prior art (paragraph 0004) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device. Thus, it would have been obvious

Art Unit: 2857

to a person of ordinary skill in the art at the time the invention was made to not output a turn-on signal to the operating processor because a battery cover plate not being correctly joined with a battery vessel would clearly be improper installation in which turning on the electronic device may lead to non-repairable damage toward the electronic device.

As per claim 6, the Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose the verification of all the cited conditions of the claim and as the Applicant's Admissions of the prior art (paragraph 0004) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that only when all the cited conditions are verified, then conditions are correct for starting, as if any one of the cited checks is not correct, turning on the electronic device may lead to non-repairable damage toward the electronic device.

As per claim 7, the Applicant's Admissions of the prior art (paragraph 0004) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that when installation is correct and the battery type is confirmed to be correct too, then conditions

Art Unit: 2857

are correct for starting, and thus the appropriate signals can be sent to turn on the portable electronic device.

As per claim 8, the Applicant's Admissions of the prior art (figure 1, paragraph 0004 of the specification) disclose the feature of this claim.

As per claim 10, the Applicant's Admissions of the prior art (paragraph 0004 of the specification) disclose the portable electronic device being a personal digital assistant.

As per claim 11, it is inherent in the art in the art that a central processing unit is the computational and control unit of a computer, that is the device that interprets and executes instructions and that single-chip central processing units are called microprocessors.

As per claim 12, the Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose "a housing for accommodating the battery, the housing comprising a battery vessel and a battery cover plate...for conveniently replacing the battery installed in the battery vessel". The Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose "a sensor installed in the housing for detecting conditions of the battery cover plate...and the battery cover plate is correctly joined with the battery vessel". The Applicant's Admissions of the prior art (figure 1, paragraph 0005 of the specification) disclose "an operating processor for controlling operations of the portable electronic device". With respect to the starting module as described in the last 5 lines of the claim, the Applicant's Admissions of the prior art (paragraph 0004 of the specification) disclose

the automatic turn on of a portable device after the sensor detects the detachable battery being correctly installed in the housing and the Applicant's Admissions of the prior art (paragraph 0005 of the specification) disclose the detecting to see if the battery cover plate is correctly joined with the battery vessel. As the Applicant's Admissions of the prior art (paragraph 0004) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that if a battery cover plate is not correctly joined with the battery vessel that would constitute improper installation which may lead to non-repairable damage toward the electronic device and thus it would have been obvious to a person of ordinary skill in the art at the time the invention was made to verify that condition too being correct before turning on the portable electronic device. It appears though that the Applicant's Admissions of the prior art does not clearly disclose a starting module for accomplishing the above. However, Eguchi et al. (Abstract, col. 2 lines 11-20, 33-37, 50-54, col. 3 lines 16-42, col. 5 lines 21-24, col. 12 lines 9-12) teaches this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Eguchi et al. to the Applicant's Admissions of the prior art as specified above because as taught by Eguchi et al. col. 3 lines 64-67) it would reduce the number of terminals for detection of loading of the battery pack enabling the realization of miniaturization and result in less unsatisfactory contact of the terminal.



As per claim 13, the Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose the verification of all the cited conditions of the claim and as the Applicant's Admissions of the prior art (paragraph 0004) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that only when all the cited conditions are verified, then conditions are correct for starting, as if any one of the cited checks is not correct, turning on the electronic device may lead to non-repairable damage toward the electronic device.

As per claim 14, the Applicant's Admissions of the prior art (figure 1, paragraph 0005 of the specification) disclose the detection of whether a battery cover plate is correctly joined with the battery vessel after a detachable battery is put inside the battery vessel. The Applicant's Admissions of the prior art (paragraph 0004) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to not output a turn-on signal to the operating processor because a battery cover plate not being correctly joined with a battery vessel would clearly be improper installation in which turning on the electronic device may lead to non-repairable damage toward the electronic device.

As per claim 15, the Applicant's Admissions of the prior art (paragraph 0004 of the specification) disclose that if there is any blunder during the battery-replacing process, such as an improper installation or wrong battery type, turning on the electronic device may lead to non-repairable damage toward the electronic device and that if the electric power of a PDA is insufficient, all the stored data will be lost. Consequently, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to not send a turn-on signal if the type of battery is incorrect and the power volume of the battery is insufficient so as to avoid non-repairable damage toward the electronic device and avoid losing all the stored data.

As per claim 16, the Applicant's Admissions of the prior art (figure 1, paragraphs 0004, 0005 of the specification) disclose the feature of this claim.

As per claim 17, the Applicant's Admissions of the prior art (figure 1, paragraph 0004 of the specification) disclose the feature of this claim.

As per claim 19, the Applicant's Admissions of the prior art (paragraph 0004 of the specification) disclose the portable electronic device being a personal digital assistant.

As per claim 20, it is inherent in the art in the art that a central processing unit is the computational and control unit of a computer, that is the device that interprets and executes instructions and that single-chip central processing units are called microprocessors.

4. The following reference is cited as being art of general interest: Translation of TW 388,555, which discloses detecting the state of a battery cover.

Art Unit: 2857

5. Applicant's arguments filed 1-28-05 have been fully considered but they are not persuasive. On page 14 of the reply, the Applicant argues that "On the other hand, neither the AAPA nor Eguchi et al. teach detecting if the type of the detachable battery is correct, detecting if the power volume of the detachable battery is sufficient, or detecting if the detachable battery is correctly installed in the battery vessel." However, not only are these features disclosed in the Applicant's Admissions of the prior art as shown in the 35 U.S.C. 103 rejections above, but the motivation as well for detecting the power volume of the detachable battery, the type of the detachable battery and if the detachable battery is correctly installed in the battery vessel. The Applicant also argues here that "Eguchi, in column 3 lines 29-33, only teaches detecting whether a battery pack is electrically connected to the electronic equipment". However, the Eguchi et al. reference was used to teach the starting module, the detecting aspects of the claimed invention being disclosed in the Applicant's Admissions of the prior art. In addition, as a result of further review and consideration, art rejections have now been applied to claims 3-7, 12-17, 19 and 20.


6. No claims are allowed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D. Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

Art Unit: 2857

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hal D Wachsman  
Primary Examiner  
Art Unit 2857

HW  
May 4, 2005